AMENDMENTS TO THE CLAIMS

1. (Previously presented) Process for preparing SO_2F_2, which comprises introducing in a gas-phase reaction step SO_2F_2 precursors comprising at least SO_2ClF and hydrogen fluoride and the reaction is carried out a temperature of at least 150^0C **and in the presence of a catalyst comprising a microporous material**.

2. (Currently amended) The process ~~Process~~ according to claim 1, in which the level of SO_2ClF is at least 80 mol% of the sum of SO_2F_2 precursors introduced into the reaction step.

3. (Currently amended) The process ~~Process~~ according to claim 2, in which the level of SO_2ClF is at least 95 mol% of the sum of SO_2F_2 precursors introduced into the reaction step.

4. (Currently amended) The process ~~Process~~ according to claim 1, in which the reaction is carried out in the presence of a catalyst based on active carbon.

5. (Currently amended) The process ~~Process~~ according to claim 1, in which the reaction is carried out at a temperature of 150 to 300°C and at a pressure of 1 to 10 bar.

6. (Currently amended) The process ~~Process~~ according to claim 1, in which the reaction is carried out in the substantial absence of chlorine.

7. (Currently amended) The process ~~Process~~ according to claim 1, in which the SO_2F_2 precursors and the hydrogen fluoride introduced in the gas-phase step are essentially devoid of hydrogen chloride.

8. (Previously presented) Integrated process for preparing SO_2F_2 and optionally SO_2ClF, comprising

(a) a first step in which hydrogen fluoride is reacted with SO_2 and chlorine and/or with SO_2Cl_2 to give SO_2ClF;

(b) a second step in which at least some of the SO_2ClF obtained in step (a) is reacted with hydrogen fluoride by the process of claim 1.

9. (Currently amended) The process ~~Process~~ according to claim 8, in which step (a) is carried out in the gas phase in the presence of a catalyst based on active carbon at a temperature less than or equal to 150°C.

10. (Currently amended) The process ~~Process~~ according to claim 8, in which step (a) is carried out at a temperature greater than or equal to 100°C and not exceeding 120°C.

11. (Currently amended) The process ~~Process~~ according to claim 8, in which, prior to step (b), the reaction mixture obtained from step (a) is subjected to a separating operation intended to concentrate the SO_2ClF and to reduce its HCl content.

12. (Currently amended) The process ~~Process~~ according to claim 11, in which the separation is carried out so as to recover, on the one hand, a fraction comprising SO_2ClF, which is intended for introduction into step (b), and, on the other hand, at least one fraction consisting essentially of SO_2ClF.

13. (Currently amended) The process ~~Process~~ according to claim 3, in which the reaction is carried out in the presence of a catalyst based on active carbon.

14. (Currently amended) The process ~~Process~~ according to claim 4, in which the reaction is carried out at a temperature of 150 to 300°C and at a pressure of 1 to 10 bar.

15. (Currently amended) The process ~~Process~~ according to claim 14, in which the reaction is carried out in the substantial absence of chlorine.

16. (Currently amended) The process ~~Process~~ according to claim 15, in which the SO_2F_2 precursors and the hydrogen fluoride introduced in the gas-phase step are essentially devoid of hydrogen chloride.

17. (Currently amended) The process ~~Process~~ according to claim 9, in which step (a) is carried out at a temperature greater than or equal to 100°C and not exceeding 120°C.

18. (Currently amended) The process ~~Process~~ according to claim 17, in which, prior to step (b), the reaction mixture obtained from step (a) is subjected to a separating operation intended to concentrate the SO_2ClF and to reduce its HCl content.

19. (Currently amended) The process ~~Process~~ according to claim 18, in which the separation is carried out so as to recover, on the one hand, a fraction comprising SO_2ClF, which is intended for introduction into step (b), and, on the other hand, at least one fraction consisting essentially of SO_2ClF.

20. (Currently amended) The process ~~Process~~ according to claim 3, in which the reaction is carried out at a temperature of 150 to 300°C and at a pressure of 1 to 10 bar.

21. (New) The process according to claim 1, wherein the catalyst comprising a microporous active carbon material which has a BET specific surface area greater than or equal to 700 m^2/g and less than 3,000 m^2/g.